

## **REMARKS**

It is believed that the following remarks attend to all rejections and objections presented in the pending May 8, 2003 office action.

### **Claim Rejections under 35 USC § 102(b)**

Claims 1-3, 6, 9 and 11 stand rejected under 35 USC § 102(b) as being anticipated by U.S. Patent No. 5,838,365 ("Sawasaki"). Applicants respectfully disagree. To anticipate a claim, the reference must teach every element of the claim and "the identical invention must be shown in as complete detail as contained in the ... claim." *MPEP 2131* citing *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1987) and *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913 (Fed. Cir. 1989).

Sawasaki does not teach every element of claims 1-3, 6, 9 and 11. Claim 1 requires the following elements:

- (A) viewing the sportsman through a digital camera;
- (B) assessing frames of data provided by the digital camera to locate motion within the frames of data; and
- (C) determining the peak altitude by comparing the highest point of motion by the sportsman within the frames of data to a reference object.

Sawasaki does not disclose these steps. The rather long specification of Sawasaki teaches tracking images within a local region – it does not teach or suggest comparing an image of a moving athlete to a reference object to automatically obtain altitude (the terms "altitude" and "height" are not mentioned within Sawasaki, for example). Sawasaki's use of "peak" refers to determining "whether or not there exists an intruding object for which the peak value of the correlation value is greater than a threshold value". Sawasaki, col. 39, lines 20-35. This is not equivalent to determining a peak altitude, as in claim 1.

The Examiner also appears to rely upon the fact that Sawasaki teaches "reference images" and that this somehow anticipates step C in determining peak altitude, as in claim 1. However,

Attorney Docket No.: 389014

with close review of Sawasaki, it is clear this is not the case. For example, with reference to Sawasaki col. 2, lines 53-67, Sawasaki recites: "the reference image data stored in the reference image memory and the search image data stored in the search image memory by carrying out a correlation computing process, peak position detecting means for obtaining a peak position of the correlation value from the correlation computing means". Sawasaki does not therefore teach determining a peak position of a moving athlete, but Sawasaki instead solves a different problem. In the summary, Sawasaki notes that it solves problems of the prior art such as: "because the reference image memory 504 prestores the fixed reference image data related to the predetermined object that is to be tracked, there was a problem in that the contents of the reference image memory 504 cannot be updated at an arbitrary time during the tracking process." It is clear therefore that the reference data and peak information relates to the same multiple objects being tracked within Sawasaki – not a single person compared to another reference object to determine altitude, as in claim 1 and as set forth in the specification.

Reconsideration of claim 1 is requested. Claims 2-3, 6 depend from claim 1 and benefit from like arguments, in addition to other features that patentably distinguish over Sawasaki. For example, in claim 3, a motion track of the sportsman is determined. Sawasaki has no teaching or disclosure of this feature. With regard to claim 6, Sawasaki uses the word "speed" only in regard to processing speed – not to determine speed as in claim 6. Sawasaki cannot then anticipate these claims, for example; thus reconsideration and allowance of claims 2-3, 6 is also requested.

Oddly, claim 9 is rejected but claim 8 is independent and rejected to as being "dependent" upon a rejected base claim. Clarification is requested. If the Examiner intended that claim 8 is rejected and claim 9 is objected to (based on Sawasaki), then we disagree since, among other reasons, Sawasaki has absolutely no teaching or suggestion of "radio, " triangulation" or anything else like claim 8. Reconsideration of claim 9 is thus requested.

Similarly, claim 11 depends from claim 8 – which is clearly patentably distinguishable from Sawasaki alone – and yet stands rejected due to Sawasaki. We request clarification.

Attorney Docket No.: 389014

Moreover, Sawasaki has no teaching or suggestion of "triangulation," as in claim 8, or "airtime," as required in dependent claim 11. Reconsideration and allowance of claim 11 is requested.

Claim 7 stands rejected as being unpatentable over Sawasaki in view of U.S. Patent No. 6,324,296 ("McSheery"). Respectfully we disagree, since the cited art does not render claim 7 *prima facie* obvious. The following is a quotation of from the MPEP setting forth the three basic criteria that must be met to establish a *prima facie* case of obviousness:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

MPEP, §2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

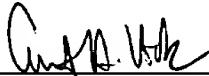
We have already argued how Sawasaki does not anticipate claim 1, from which claim 7 depends. McSheery is cited because of a frame rate; however, Sawasaki with McSheery do not teach every element of claim 1 and 7, so they fail under 35 U.S.C. §102. Reconsideration of claim 7 is requested. Note, in particular, that McSheery discloses tracking individually-modulated light points; a camera is used to image light in the motion capture environment along two axes. *See col. 5, lines 17-30.* Not once does McSheery disclose determining a peak altitude or viewing a moving sportsman through frames of data from a digital camera. Importantly, McSheery is absolutely silent as to comparing a highest point of motion of the sportsman to a reference object, as required by claim 1 and shown clearly in Applicants' FIG. 1.

For the reasons stated above, Applicants argue that claims 1-12 are allowable over the art of record. Applicants request an opportunity to interview this case in the event any claims are further rejected so that these issues may be better framed prior to another appeal.

The \$55 fee for a one-month extension has been submitted, to extend the period of response to and including May 8, 2003. It is believed no additional fees are due. If any additional fee is due, please charge Deposit Account No. 12-0600.

Respectfully submitted,

By:

  
Curtis A. Vock, Reg. No. 38,356  
LATHROP & GAGE L.C.  
4845 Pearl East Circle, Suite 300  
Boulder, CO 80301  
Tele: (720) 931-3000  
Fax: (720) 931-3001